I. INTRODUCTION

The 2004-05 Tanzania Demographic and Health Survey (2004-05 TDHS) was carried out by the National Bureau of Statistics (NBS) from October 2004 to February 2005 on a nationally representative sample of more than 10,000 households. All women age 15-49 in these households and all men age 15-49 in a sub-sample of one-third of the households were individually interviewed.

The 2004-05 TDHS is designed to provide data to monitor the population and health situation in Tanzania. Specifically, the 2004-05 TDHS collected information on household characteristics, fertility levels and preferences, awareness and use of family planning methods, childhood mortality, maternal and child health, breastfeeding practices, nutritional status of women and young children, malaria prevention and treatment, women's status, sexual activity, and awareness and behaviour regarding AIDS and other sexually transmitted infections in Tanzania.

This preliminary report presents selected results of the 2004-05 TDHS. A comprehensive analysis of the data will be published by the end of the year. While considered provisional, the results presented here are not expected to differ significantly from those to be presented in the final report.

II. SURVEY IMPLEMENTATION

A. Sample Design

The sample was designed so as to allow separate estimates for the national level, for urban and rural areas of the Mainland, and for Zanzibar. Additionally, the sample design allowed for specific indicators, such as contraceptive use, to be calculated for each of the 26 regions.

To estimate geographic differentials for certain demographic indicators, this report collapses the regions of mainland Tanzania into seven geographic zones. Although these are not official administrative zones, this classification is used by the Reproductive and Child Health Section at the Ministry of Health. The reason for using zones is that each geographic area will have a relatively large number of cases and sampling error will thus be reduced. It should be noted that the zones, which are defined below, are slightly different from the zones used in the 1991-92 and 1996 TDHS reports:

Western: Tabora, Shinyanga, Kigoma
Northern: Kilimanjaro, Tanga, Arusha, Manyara
Central: Dodoma, Singida
Southern Highlands: Mbeya, Iringa, Rukwa
Lake: Kagera, Mwanza, Mara
Eastern: Dar es Salaam, Pwani, Morogoro
Southern: Lindi, Mtwara, Ruvuma
Zanzibar: Unguja, Pemba

A representative probability sample of 10,312 households was selected for the 2004-05 TDHS sample. The sample was selected in two stages. In the first stage, 475 clusters were selected from a list of enumeration areas from the 2002 Population Census. In the second stage, a complete listing of households was carried out in each selected cluster. Households were then systematically selected for participation in the survey.

All women age 15-49 who were either permanent residents of the households in the 2004-05 TDHS sample or visitors present in the household on the night before the survey were eligible to be interviewed. In addition, in a subsample of one-third of all the households selected for the survey, all men age 15-49 were eligible to be interviewed if they were either permanent residents or visitors present in the household on the night before the survey.

B. Questionnaires

Three questionnaires were used for the 2004-05 TDHS: the Household Questionnaire, the Women's Questionnaire, and the Men's Questionnaire. To reflect relevant issues in population and health in Tanzania, the questionnaires were adapted during a series of technical meetings with various stakeholders from government ministries and agencies, non-governmental organizations and international donors. The final draft of the questionnaire was discussed at a large stakeholders' meeting organized by the NBS. The adapted questionnaires were translated from English into Kiswahili and pretested during July and August 2004.

The Household Questionnaire was used to list all the usual members and visitors in the selected households. Some basic information was collected on the characteristics of each person listed, including age, sex, education, and relationship to the head of the household. For children under 18, survival status of the parents was determined. The main purpose of the Household Questionnaire was to identify women and men who were eligible for the individual interview. The Household Questionnaire also collected information on characteristics of the household's dwelling unit, such as the source of water, type of toilet facilities, materials used for the floor of the house, ownership of various durable goods, and ownership and use of mosquito nets. Additionally, the Household Questionnaire was used to record height, weight, and hemoglobin measurements of women age 15-49 and children under the age of 6.

The Women's Questionnaire was used to collect information from all women age 15-49. These women were asked questions on the following topics:

- Background characteristics (education, residential history, media exposure, etc.)
- Birth history and childhood mortality
- Knowledge and use of family planning methods
- Fertility preferences
- Antenatal and delivery care
- Breastfeeding and infant feeding practices
- Vaccinations and childhood illnesses
- Marriage and sexual activity
- Woman's work and husband's background characteristics
- Awareness and behaviour regarding AIDS and other sexually transmitted infections (STIs)
- Female genital cutting
- Maternal mortality

The Men's Questionnaire was administered to all men age 15-49 living in every third household in the 2004-05 TDHS sample. The Men's Questionnaire collected much of the same information found in the Women's Questionnaire, but was shorter because it did not contain a detailed reproductive history or questions on maternal and child health or nutrition.

C. Training of Field Staff

Over 100 people were recruited by the NBS to serve as supervisors, field editors, male and female interviewers, quality control personnel, and reserves. They all participated in the main interviewer training, which began on September 13 in Moshi. Staff from the NBS and invited experts led the three-week training which was conducted mainly in Kiswahili and included lectures, presentations, practical demonstrations, and practice interviewing in small groups. The training included two days of field practice. The participants also received training relating to height and weight measurements and hemoglobin testing. Two experts from the Tanzanian Food and Nutrition Centre led those training sessions.

D. Fieldwork

Data collection began on October 7, 2004 by 14 data collection teams consisting of four female interviewers, one male interviewer, a supervisor, a field editor and a driver. Fieldwork was completed in mid-February 2005. Fieldwork supervision was coordinated at NBS headquarters; four officers periodically visited teams to review their work and monitor data quality. Additionally, close contact between NBS headquarters and the teams was maintained through cell phones.

E. Data Processing

The processing of the 2004-05 TDHS results began shortly after the fieldwork commenced. Completed questionnaires were returned periodically from the field to NBS headquarters, where they were entered and edited by data processing personnel who were specially trained for this task. The data processing personnel included a supervisor, a questionnaire administrator who ensured that the expected number of questionnaires from all clusters were received, several office editors, 10 data entry operators, and a secondary editor. The concurrent processing of the data was an advantage since NBS was able to advise field teams of problems detected during the data entry. In particular, tables were generated to check various data quality parameters. As a result, specific feedback was given to the teams to improve performance. The data entry and editing phase of the survey was completed in April 2005.

II. PRELIMINARY FINDINGS

A. Response Rates

Table 1 shows household and individual response rates for the 2004-05 TDHS. A total of 10,312 households were selected for the sample, of which 9,852 were found to be occupied during data collection. Of the 9,852 existing households, 9,735 were successfully interviewed, yielding a household response rate of 99 percent.

In these households, 10,611 women were identified as eligible for the individual interview. Interviews were completed with 97 percent of them. Of the 2,871 eligible men identified, 92 percent were successfully interviewed. There is little variation in response rates by residence.

Table 1 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence, Tanzania 2004

	Residence				
	Mainland				
Result	Urban	Rural	Total	Zanzibar	Total
Household interviews					
Households selected	1,952	6,370	8,322	1,989	10,312
Households occupied	1,818	6,114	7,932	1,919	9,852
Households interviewed	1,783	6,064	7,847	1,887	9,735
Household response rate	98.1	99.2	98.9	98.3	98.8
Individual interviews: women					
Number of eligible women	2,044	6,303	8,347	2,264	10,611
Number of eligible women interviewed	1,985	6,132	8,117	2,212	10,329
Eligible women response rate	97.1	97.3	97.2	97.7	97.3
Individual interviews: men					
Number of eligible men	528	1,751	2,279	592	2,871
Number of eligible men interviewed	475	1,621	2,096	539	2,635
Eligible men response rate	90.0	92.6	92.0	91.0	91.8

B. Characteristics of Respondents

The distribution of women age 15-49 and men age 15-49 by background characteristics is shown in Table 2. The proportions of women and men decline with increasing age, which reflects the young age structure of the Tanzanian population.

Two-thirds of women are currently married or living together as are half of men. Because men tend to marry later in life than women, 42 percent of men in the sample have never been married as opposed to 23 percent of women. Furthermore, women are more likely than men to have been divorced, separated or widowed.

Table 2 Background Characteristics of Respondents

Percent distribution of women and men by background characteristics, Tanzania 2004

Background characteristic	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
15-19	21.7	2,245	2,297	24.2	637	675
20-24	19.4	2,007	1,958	18.7	493	461
25-29	18.3	1,885	1,832	15.4	405	395
30-34	14.9	1,542	1,487	14.7	387	372
35-39	10.2	1,053	1,100	10.5	278	284
40-44	8.1	834	904	10.1	265	275
45-49	7.4	763	751	6.5	170	173
Marital status						
Never married	23.0	2,371	2,524	41.7	1,100	1,131
Married	58.5	6,041	6,042	48.0	1,264	1,264
Living together	8.8	910	744	5.2	136	115
Divorced/separated	7.2	740	766	4.7	124	113
Widowed	2.6	267	253	0.4	11	12
Residence						
Urban	28.4	2,935	2,513	27.2	716	601
Rural	71.6	7,394	7,816	72.8	1,919	2,034
Mainland/Zanzibar						
Mainland	97.0	10,016	8,117	97.0	2,555	2,095
Total urban	27.9	2,885	2,011	27.2	717	489
Dar es Salaam city	9.4	969	412	10.2	268	111
Other urban	18.6	1,916	1,599	17.1	450	378
Total rural	69.0	7,131	6,106	69.7	1,838	1,606
Zanzibar	3.0	313	2,212	3.0	79	539
Unguja	2.1	216	1,365	2.0	53	319
Pemba	0.9	97	847	1.0	26	220
Region						
Dodoma	4.5	468	351	4.3	113	92
Arusha	3.8	391	402	3.1	82	86
Kilimanjaro	3.7	380	349	3.9	104	90
Tanga	4.2	431	358	3.6	94	76
Morogoro	4.3	449	325	4.8	127	93
Pwani	2.4	253	334	2.6	68	86
Dar es Salaam	9.4	969	412	10.1	267	110
Lindi	2.1	221	324	2.5	65	103
Mtwara	3.4	346	344	3.7	98	96
Ruvuma	2.9	299	362	3.1	83	105
Iringa	4.0	412	331	3.9	102	80
Mbeya	6.9	712	402	6.4	170	96
Singida	3.2	331	433	3.8	99	135
Tabora	5.0	520	485	4.8	127	122
Rukwa	3.1	316	403	3.3	87	117
Kigoma	4.8	499	414	4.8	127	95
Shinyanga	8.3	861	477	8.1	215	120
Kagera	5.3	545	376	4.6	122	82
Mwanza	9.1	939	435	8.7	229	105
Mara	3.7	381	415	3.7	98	105
Manyara	2.8	293	385	3.1	83	102
Zanzibar North	0.5	48	441	0.4	11	97
Zanzibar South	0.3	26	387	0.2	6	93
Town West	1.4	143	537	1.4	36	129
Pemba North	0.5	52	433	0.5	13	108
Pemba South	0.4	45	414	0.5	12	112
Education						
No education	24.2	2,503	2,532	11.8	312	325
Primary incomplete	18.0	1,855	1,940	24.5	646	692
Primary complete	49.2	5,086	4,440	52.4	1,381	1,226
Secondary+	8.6	885	1,417	11.2	296	392
Religion						
Moslem	30.0	3,095	4,578	30.3	798	1,161
Catholic	28.5	2,944	2,445	28.7	755	639
Protestant	29.0	3,000	2,373	28.0	739	580
No religion	12.4	1,284	929	13.0	342	254
Other	0.0	3	2	0.0	1	1
Total	100.0	10,329	10,329	100.0	2,635	2,635

Note: The total includes 2 women for whom information on religion is missing.

More than half of all respondents report that they have completed at least primary school. However, only one in ten has attended secondary school or higher. In general, women are disadvantaged in terms of educational attainment. For example, almost one-quarter of women have no education, more than twice the proportion of men.

C. Fertility

Fertility data were collected in the 2004-05 TDHS by asking each of the women interviewed for a history of her births. The information obtained on each of the woman's births included the month and year of the birth. These data are used to calculate two of the most widely used measures of current fertility, the total fertility rate (TFR) and its component age-specific fertility rates. The TFR, which is the sum of the age-specific fertility rates, is interpreted as the number of children the average woman would bear in her lifetime if she experienced the currently observed age-specific fertility rates throughout her reproductive years.

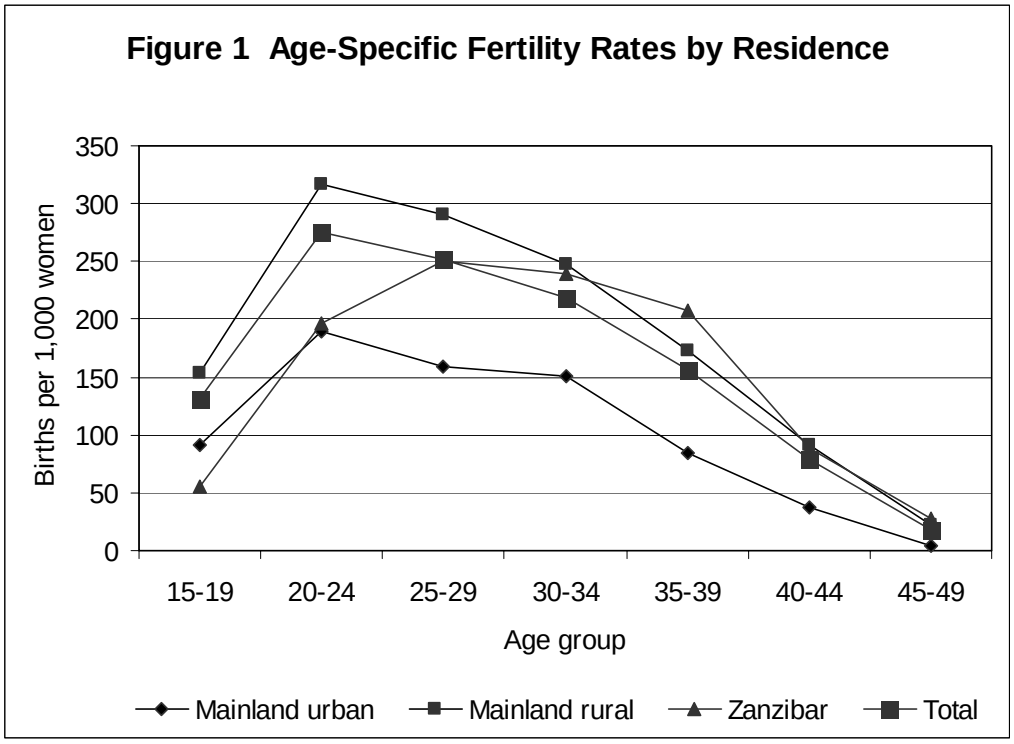
According to the results of the 2004-05 TDHS, the TFR is 5.7 (Table 3). On the Mainland, urban-rural differentials are large. On average, rural women will give birth to approximately three more children during their reproductive years than urban women (6.5 versus 3.6—Figure 1). The 2004-05 TDHS TFR of 5.7 is statistically at the same level as rates estimated by the 1996 TDHS (5.8 births) and the 1999 TRCHS (5.6 births). Thus, there is no evidence of fertility decline in Tanzania over the last eight years.

Table 3 Current Fertility

Age-specific and cumulative fertility rates, the general fertility rate, and the crude birth rate for the three years preceding the survey, by residence, Tanzania 2004

	Residence				
	Mainland				
Age	Urban	Rural	Total	Zanzibar	Total
15-19	91	154	135	56	132
20-24	190	317	277	196	275
25-29	159	290	252	251	252
30-34	151	247	219	239	219
35-39	85	173	154	208	156
40-44	38	91	79	88	79
45-49	4	22	18	28	18
TFR	3.6	6.5	5.7	5.3	5.7
GFR	134	225	199	168	198
CBR	34.6	44.8	42.5	38.1	42.3

Note: Rates for age group 45-49 may be slightly biased due to truncation.
TFR: Total fertility rate for ages 15-49, expressed per woman
GFR: General fertility rate (births divided by the number of women age 15-44), expressed per 1,000 women
CBR: Crude birth rate, expressed per 1,000 population



D. Family Planning

Information about knowledge and use of contraceptive methods was collected from female respondents by asking them to mention any ways or methods by which a couple can delay or avoid a pregnancy. When the respondent failed to mention a method spontaneously, the interviewer described the method and then asked if the respondent knew it. For each method known, the respondent was asked if she had ever used it. Finally, women were asked if they (or their partner) were currently using a method. For analytical purposes, contraceptive methods are grouped into two types in the table: modern and traditional. Modern methods include female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, and lactational amenorrhoea method (LAM). Traditional methods include periodic abstinence, withdrawal, and folk methods.

Tables 4.1 and 4.2 show the level and key differentials in the current use of contraception by method as reported by currently married women. Overall, the 2004-05 TDHS found that 26 percent are using some method of contraception. The majority of users rely on a modern method. Use of modern contraceptive methods seems to have increased slightly from 17 percent of currently married women in the 1999 TRCHS to 20 percent in the 2004-05 TDHS, although sampling variability may account for this difference. The most commonly used modern methods are injectables and the pill (8 percent and 6 percent, respectively).

As expected, contraceptive use increases with educational attainment. Half of women with at least some secondary education use a method, in contrast to 13 percent of women with no education. In general, women do not begin to use contraception until they have had at least one child.

Table 4.1 Current use of contraception by background characteristics

Percent distribution of currently married women by contraceptive method currently used, according to selected background characteristics, Tanzania 2004

		Modern method								Traditional method						
Background characteristic	Any method	Any modern method	Female sterili-zation	Pill	IUD	Inject-ables	Implants	Male condom	LAM	Any tradi-tional method	Periodic absti-nence	With-drawal	Folk method	Not currently using	Total	Number of women
Age																
15-19	9.6	6.9	0.0	1.9	0.0	3.8	0.1	0.8	0.3	2.7	0.3	1.8	0.5	90.4	00.0	590
20-24	25.5	19.0	0.0	6.0	0.0	8.7	1.0	3.2	0.2	6.5	1.4	3.6	1.5	74.5	00.0	1,400
25-29	31.2	23.8	0.6	7.9	0.2	10.9	0.3	3.1	0.7	7.4	2.2	3.8	1.4	68.8	00.0	1,511
30-34	30.6	23.5	1.9	9.0	0.6	9.2	0.9	1.3	0.6	7.0	2.5	3.4	1.1	69.4	00.0	1,292
35-39	29.9	22.1	3.3	5.6	0.1	10.3	0.0	1.3	1.2	7.8	3.0	3.2	1.6	70.1	00.0	884
40-44	23.4	18.4	7.3	3.6	0.1	5.4	0.6	1.0	0.4	5.0	2.5	1.0	1.4	76.6	00.0	694
45-49	21.8	16.6	11.4	1.1	0.0	3.3	0.0	0.6	0.2	5.3	1.8	1.7	1.8	78.2	00.0	580
Education																
No education	13.4	8.3	1.5	1.9	0.0	3.6	0.1	0.7	0.5	5.1	0.5	2.6	2.1	86.6	00.0	1,994
Primary incomplete	21.8	16.5	3.0	3.7	0.0	7.6	0.2	1.5	0.6	5.3	1.1	2.9	1.3	78.2	00.0	1,070
Primary complete	32.5	25.7	2.8	8.1	0.1	10.9	0.6	2.6	0.6	6.8	2.5	3.2	1.1	67.5	00.0	3,512
Secondary+	50.6	38.2	4.8	13.8	2.5	10.5	2.5	4.2	0.0	12.4	9.1	3.3	0.1	49.4	00.0	375
Living children																
0	2.3	1.1	0.0	0.3	0.0	0.0	0.2	0.6	0.0	1.2	0.4	0.6	0.1	97.7	00.0	650
1-2	28.3	22.0	0.5	7.9	0.3	9.3	0.7	3.1	0.3	6.2	2.0	3.1	1.1	71.7	00.0	2,571
3-4	31.8	24.4	3.0	7.3	0.2	10.5	0.7	2.1	0.6	7.4	2.5	3.4	1.5	68.2	00.0	1,960
5+	26.4	19.0	6.1	3.7	0.0	7.3	0.1	0.8	1.0	7.4	2.1	3.3	1.9	73.6	00.0	1,770
Total	26.4	20.0	2.6	5.9	0.2	8.3	0.5	2.0	0.5	6.4	2.0	3.0	1.3	73.6	00.0	6,950

Note: If more than one method is used, only the most effective method is considered in this tabulation.
LAM = Lactational amenorrhea method.

Contraceptive use also varies markedly according to geographical area. For example, within Zanzibar, women residing in the more urbanized Unguja are more than twice as likely as those in the less urbanized Pemba to use some contraceptive method. Similarly, on the Mainland urban women are about twice as likely as rural women to use some contraceptive method. Contraceptive use also varies significantly by region, from 7 percent in Pemba North, to 50 percent in Kilimanjaro.

Table 4.2 Current use of contraception by residence and region

Percent distribution of currently married women by contraceptive method currently used, according to residence and region, Tanzania 2004

Residence and Region	Any method	Modern method								Traditional Nethod				Not currently using	Total	Number of women
		Any modern method	Female sterili-zation	Pill	IUD	Inject-ables	Implants	Male condom	LAM	Any tradi-tional	Periodic absti-nence	With-drawal	Folk method			
Residence																
Urban	41.8	34.3	4.9	11.9	0.6	12.6	1.3	2.5	0.3	7.6	4.4	2.7	0.4	58.2	100.0	1,647
Rural	21.6	15.5	1.8	4.1	0.1	6.9	0.2	1.8	0.6	6.0	1.3	3.1	1.6	78.4	100.0	5,303
Mainland/Zanzibar																
Mainland	26.7	20.3	2.6	6.0	0.2	8.4	0.5	2.0	0.5	6.4	2.0	3.0	1.4	73.3	100.0	6,769
Total urban	41.9	34.5	4.9	11.7	0.6	13.0	1.3	2.6	0.3	7.4	4.4	2.6	0.4	58.1	100.0	1,644
Dar es Salaam city	44.6	34.8	3.7	11.6	0.9	13.7	1.5	3.4	0.0	9.8	6.5	3.0	0.3	55.4	100.0	541
Other urban	40.6	34.3	5.4	11.8	0.5	12.6	1.2	2.3	0.5	6.3	3.3	2.5	0.5	59.4	100.0	1,103
Total rural	21.8	15.7	1.9	4.1	0.1	6.9	0.2	1.8	0.6	6.1	1.2	3.1	1.7	78.2	100.0	5,125
Zanzibar	15.3	9.4	1.0	4.5	0.1	3.3	0.1	0.3	0.1	5.9	3.4	2.3	0.3	84.7	100.0	182
Unguja	18.7	10.6	1.1	5.9	0.0	2.8	0.2	0.4	0.1	8.1	4.4	3.4	0.4	81.3	100.0	123
Pemba	8.2	6.9	0.8	1.7	0.2	4.2	0.0	0.0	0.0	1.3	1.3	0.0	0.0	91.8	100.0	58
Region																
Dodoma	23.8	22.2	1.0	9.5	0.0	9.8	0.0	2.0	0.0	1.5	1.5	0.0	0.0	76.2	100.0	333
Arusha	48.6	34.7	1.8	11.2	0.8	15.5	0.8	3.0	1.6	13.9	4.5	3.8	5.6	51.4	100.0	243
Kilimanjaro	49.5	38.3	10.2	6.8	1.0	17.2	1.6	1.5	0.0	11.2	5.1	4.7	1.4	50.5	100.0	214
Tanga	40.2	29.0	1.8	6.3	0.5	15.5	0.9	4.0	0.0	11.2	2.5	8.7	0.0	59.8	100.0	291
Morogoro	34.6	29.9	4.5	10.6	0.0	11.2	0.5	2.6	0.6	4.7	1.4	1.5	1.9	65.4	100.0	311
Pwani	22.2	19.3	1.4	4.4	0.0	9.6	1.6	2.3	0.0	2.9	2.2	0.7	0.0	77.8	100.0	176
Dar es Salaam	44.6	34.8	3.7	11.6	0.9	13.7	1.5	3.4	0.0	9.8	6.5	3.0	0.3	55.4	100.0	541
Lindi	33.5	30.1	3.5	18.3	0.0	6.1	0.4	1.8	0.0	3.4	0.8	0.4	2.2	66.5	100.0	156
Mtwara	26.8	25.9	2.2	13.6	0.0	9.2	0.0	0.9	0.0	0.9	0.0	0.0	0.9	73.2	100.0	235
Ruvuma	41.6	34.8	6.1	7.7	0.0	14.5	1.3	5.2	0.0	6.8	3.2	3.1	0.5	58.4	100.0	193
Iringa	35.1	26.4	3.4	7.8	0.0	10.4	0.0	4.4	0.5	8.6	3.9	4.3	0.4	64.9	100.0	254
Mbeya	45.1	23.5	2.0	7.0	0.0	9.2	1.0	2.2	2.0	21.6	0.3	16.5	4.8	54.9	100.0	526
Singida	18.3	16.9	2.3	6.1	0.3	7.6	0.0	0.6	0.0	1.4	0.0	0.7	0.7	81.7	100.0	219
Tabora	10.3	7.8	1.2	0.5	0.0	4.5	0.3	1.3	0.0	2.5	0.9	0.6	1.0	89.7	100.0	395
Rukwa	18.1	13.1	0.3	3.5	0.5	5.1	0.0	3.6	0.0	5.0	0.9	3.4	0.7	81.9	100.0	233
Kigoma	19.8	12.2	2.5	1.4	0.3	5.8	0.0	0.6	1.0	7.5	3.1	3.7	0.8	80.2	100.0	312
Shinyanga	10.9	7.5	1.9	1.9	0.0	2.1	0.2	1.5	0.0	3.4	1.2	0.3	1.9	89.1	100.0	634
Kagera	15.7	15.0	3.4	3.0	0.0	7.5	0.0	1.1	0.0	0.7	0.0	0.3	0.4	84.3	100.0	403
Mwanza	11.0	9.2	2.2	2.2	0.0	3.2	0.3	0.6	0.7	1.7	0.6	0.0	1.1	89.0	100.0	645
Mara	13.0	10.8	1.8	1.1	0.0	6.7	0.3	0.6	0.3	2.3	1.6	0.4	0.3	87.0	100.0	252
Manyara	26.5	17.3	0.9	3.9	0.0	5.9	0.0	1.4	5.2	9.2	3.9	2.9	2.4	73.5	100.0	203
Zanzibar North	7.8	5.4	0.8	2.5	0.0	1.4	0.0	0.7	0.0	2.4	0.3	1.2	0.9	92.2	100.0	28
Zanzibar South	21.0	16.5	0.3	12.9	0.0	2.2	0.0	0.3	0.7	4.5	2.5	0.7	1.2	79.0	100.0	17
Town West	22.2	11.2	1.4	5.6	0.0	3.5	0.3	0.4	0.0	11.0	6.2	4.8	0.0	77.8	100.0	78
Pemba North	7.2	6.3	0.8	1.4	0.0	4.1	0.0	0.0	0.0	0.9	0.9	0.0	0.0	92.8	100.0	31
Pemba South	9.4	7.5	0.8	2.0	0.4	4.4	0.0	0.0	0.0	1.8	1.8	0.0	0.0	90.6	100.0	27

Note: If more than one method is used, only the most effective method is considered in this tabulation.
LAM = Lactational amenorrhea method.

E. Fertility Preferences

Several questions were asked in the survey concerning a woman's fertility preferences. These questions included: a) whether the respondent wanted another child and b) if so, when she would like to have the next child. The answers to these questions allow an estimation of the potential demand for family planning services either to limit or space births.

Table 5 indicates that sixty-nine percent of married women say that they either want to delay the birth of their next child or to have no more children. Fertility preferences are closely related to the number of living children a woman has. In general, as the number of living children increases, the desire to want another child decreases. For example, 56 percent of currently married women with 5 living children have been sterilized or say they want to have no more children. On the other hand, almost all married women with no children want to have a child; nine in ten say that they want to have a child soon.

Table 5 Fertility preferences by number of living children

Percent distribution of currently married women by desire for children, according to number of living children, Tanzania 2004

	Number of living children[1]							
Desire for children	0	1	2	3	4	5	6+	Total
Have another soon[2]	89.6	33.2	23.8	18.7	16.1	10.0	6.1	23.6
Have another later[3]	3.9	59.4	59.5	51.1	37.4	27.9	20.0	41.8
Have another, undecided when	0.3	0.9	0.4	0.6	0.4	0.3	0.4	0.5
Undecided	0.6	0.9	1.7	2.9	2.8	3.6	2.7	2.2
Want no more	0.7	3.7	12.8	22.8	37.5	51.4	59.3	26.9
Sterilized[4]	0.0	0.3	0.7	2.0	4.0	4.4	6.6	2.6
Declare infecund	4.5	1.5	1.1	1.9	1.8	2.4	4.9	2.4
Missing	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	457	1,247	1,320	1,189	866	662	1,211	6,950

[1] Includes current pregnancy
[2] Wants next birth within 2 years
[3] Wants to delay next birth for 2 or more years
[4] Includes both male and female sterilization

F. Maternal Care

Proper care during pregnancy and delivery are important for the health of both the mother and the baby. In the 2004-05 TDHS, women who had given birth in the five years preceding the survey were asked a number of questions about maternal health care. For the last live birth in that period, the mothers were asked whether they had obtained antenatal care during the pregnancy and whether they had received tetanus toxoid injections or iron supplements during pregnancy. For each birth in the same period, the mothers were also asked what type of assistance they received at the time of delivery and where the delivery took place. Table 6 presents the information on these key maternal care indicators.

Antenatal Care

Antenatal care from a trained provider is important in order to monitor the pregnancy and reduce the risks for the mother and child during pregnancy and at delivery. According to the 2004-05 TDHS results, 94 percent of women who gave birth in the 5 years preceding the survey received antenatal care from a health professional at least once. With the exception of a few regions, nine out of ten women received care from a trained provider at least once, regardless of background characteristics.

Tetanus Toxoid and Iron Supplements

Tetanus toxoid injections are given during pregnancy to prevent neonatal tetanus, an important cause of infant deaths. Mothers also are given iron supplements during pregnancy since maternal anaemia is another frequent cause of both maternal and neonatal mortality.

Table 6 Maternal care indicators

Percentage of women who had a live birth in the five years preceding the survey who received specific maternal health services during pregnancy for the most recent birth, and among all live births in the five years before the survey, percentage delivered by a health professional and percentage delivered in a health facility, by background characteristics, Tanzania 2004

Background Characteristic	Percentage with antenatal care from a health professional[1]	Percentage given at least one tetanus toxoid injection	Percentage given iron tablets or syrup	Number of women	Percentage delivered by a health professional[1]	Percentage delivered in a health facility	Number of births
Mother's age at birth							
<20	93.6	91.6	65.8	907	49.8	50.9	1,504
20-34	94.6	79.3	60.8	4,014	46.8	47.8	6,151
35+	93.6	71.0	57.3	851	38.4	37.8	1,069
Birth order							
1	95.7	93.2	66.2	1,178	61.9	62.8	1,922
2-3	95.4	84.8	61.6	2,097	48.0	49.1	3,145
4-5	93.0	73.0	60.5	1,204	39.0	40.1	1,820
6+	92.5	66.9	56.3	1,293	34.4	34.1	1,838
Residence							
Urban	96.8	86.5	63.4	1,277	80.9	81.0	1,691
Rural	93.6	78.2	60.4	4,496	38.0	38.9	7,034
Mainland/Zanzibar							
Mainland	94.2	80.2	61.2	5,628	46.2	47.0	8,506
Total urban	96.8	86.9	64.0	1,269	80.7	80.8	1,670
Dar es Salaam city	100.0	90.6	73.0	369	90.6	90.4	428
Other urban	95.4	85.4	60.3	900	77.2	77.5	1,241
Total rural	93.4	78.2	60.4	4,359	37.8	38.8	6,836
Zanzibar	98.8	73.8	56.2	144	50.8	48.7	219
Unguja	100.0	72.7	60.2	93	61.3	58.2	133
Pemba	96.6	75.8	48.8	51	34.7	34.0	86
Region							
Dodoma	97.7	80.6	59.7	277	38.7	36.5	413
Arusha	84.5	81.1	38.5	205	52.8	50.8	288
Kilimanjaro	99.2	81.0	63.1	145	71.1	70.2	210
Tanga	97.7	90.5	67.1	250	42.3	41.1	355
Morogoro	94.1	83.1	40.0	253	45.6	46.0	349
Pwani	98.0	78.9	44.2	144	45.0	43.0	191
Dar es Salaam	100.0	90.6	73.0	369	90.6	90.4	428
Lindi	98.1	80.7	88.6	117	46.3	47.1	147
Mtwara	100.0	87.1	88.7	201	37.6	37.2	247
Ruvuma	100.0	84.6	67.3	185	79.4	79.6	244
Iringa	100.0	86.1	54.5	216	71.4	71.8	294
Mbeya	84.8	76.5	67.3	425	39.7	41.1	662
Singida	98.6	79.6	78.2	196	42.7	40.1	303
Tabora	92.6	82.7	62.3	311	52.3	53.7	508
Rukwa	89.3	79.1	58.0	203	35.3	37.5	326
Kigoma	92.7	62.0	54.8	282	36.7	38.9	484
Shinyanga	87.8	73.5	59.4	550	37.5	44.7	919
Kagera	98.4	76.4	57.7	351	32.3	32.3	574
Mwanza	94.6	81.8	55.7	546	46.9	47.3	899
Mara	96.2	82.1	63.8	229	31.0	31.5	395
Manyara	88.6	74.5	57.3	173	36.1	34.3	269
Zanzibar North	100.0	61.0	72.7	21	25.4	23.2	33
Zanzibar South	100.0	62.1	75.3	13	61.6	54.6	19
Town West	100.0	79.2	52.4	59	75.9	73.4	81
Pemba North	99.6	78.8	41.7	27	30.0	28.9	44
Pemba South	93.2	72.5	56.9	24	39.6	39.5	42
Education							
No education	90.5	78.2	57.4	1,466	30.7	32.2	2,318
Primary incomplete	94.9	80.8	65.1	910	40.8	42.0	1,378
Primary complete	95.4	80.2	61.9	3,094	52.6	52.9	4,642
Secondary +	99.2	84.6	58.9	302	84.3	84.9	387
Total	94.3	80.0	61.1	5,772	46.3	47.1	8,725

[1] Doctor/AMO, clinical officer, assistant clinical officer, nurse/midwife, or MCH aide

Table 6 indicates that 80 percent of all pregnant women received at least one tetanus toxoid injection and 61 percent were given iron supplementation during pregnancy. It is notable that mothers who are under age 20, those having their first child, and those living in Dar es Salaam are the most likely to have received a tetanus toxoid injection or iron tablets. Although the likelihood of receiving an injection increases with educational attainment, there is no clear relationship between education and receiving iron tablets.

Delivery Care

Proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections that can cause the death or serious illness of the mother and/or the baby. Although 94 percent of mothers received antenatal care from a trained provider for their most recent birth, less than half of babies are delivered by a health professional or at a health facility (46 percent and 47 percent, respectively).

Women's utilization of delivery services increases significantly with education. For example, 31 percent of women with no education were attended during delivery by a health professional compared to 84 percent of women with secondary or more education. On the other hand, a woman's likelihood of professional delivery care decreases as the birth order increases.

There is considerable variation by residence. Urban women are twice as likely as rural women to have had a health professional in attendance during delivery. On the Mainland, the percentage of women who delivered in a health facility ranges from a low of 32 in Mara and Kagera to a high of 90 in Dar es Salaam, while on Zanzibar, this ranges from 23 percent in Zanzibar North to 73 percent in Town West.

G. Maternal Mortality

Maternal mortality is recognized as a serious health problem in Tanzania. One objective of the 2004-05 TDHS was to provide a national estimate of maternal mortality. In the 2004-05 TDHS, female respondents were asked to list all their siblings, that is, all the children born to their mother starting with the first born, and whether or not each of these siblings was still alive at the time of the survey. The current age was collected for those who were still alive, and additional information was sought on the year of death and age at death of deceased siblings.

To establish whether deaths were maternity-related, respondents were further asked questions for all sisters who died at age 12 or older: "Was [NAME OF SISTER] pregnant when she died?"; and if not, "Did she die during childbirth?"; and if not, "Did she die within two months after the end of a pregnancy or childbirth?"

The age specific estimates of maternal mortality are presented in Table 7. Age-specific mortality rates are calculated by dividing the number of maternal deaths by woman-years of exposure. Maternal deaths are defined as any death of a sister that occurred during pregnancy, childbirth, or within two months after the birth or termination of a pregnancy. The overall rate for women age 15-49 is standardized by the age distribution of the survey respondents.

In all the number of maternal deaths for the period 0-9 years preceding the survey (approximately 1995-2004) is 203. The maternal mortality rate, which is the annual number of maternal deaths per 1,000 women age 15-49 for the period 1995-2004 is 1.1. Maternal mortality is highest among women in their early thirties. However, the age-specific pattern should be interpreted with caution because of the small number of events.

Table 7 Maternal mortality

Direct estimates of maternal mortality for the period 0-9 years prior to the survey, Tanzania 2004

Age	Maternal deaths	Exposure (woman-years)	Mortality rates
15-19	15	39,661	0.382
20-24	50	41,588	1.194
25-29	48	36,757	1.298
30-34	47	28,667	1.646
35-39	23	19,736	1.181
40-44	15	11,756	1.311
45-49	5	6,140	0.829
15-49	203	184,306	1.104
General fertility rate[1]			0.198
Maternal mortality ratio[2]			578

[1] Expressed per 1,000 woman-years of exposure.
[2] Expressed per 100,000 live births, calculated as the maternal mortality divided by the general fertility rate.

The maternal mortality rate is conventionally converted to a maternal mortality ratio and expressed per 100,000 live births by dividing the age-standardized maternal mortality rate by the age-standardized general fertility rate for the same reference period. The advantage of this conversion is that it highlights the obstetric risk, which has a high programmatic significance. Thus, for Tanzania between 1995-2004, the maternal mortality ratio is estimated at 578. In other words, for every 1,000 live births in Tanzania during this period, almost 6 women died of pregnancy-related causes.

It should be noted that maternal mortality is a difficult indicator to measure because of the large sample sizes required to calculate an accurate estimate. (This is evidenced by the fact that the maternal mortality ratio is expressed *per 100,000 live births*, demonstrating that it is a relatively rare event.) Although 2004-05 TDHS ratio of 578 is higher than the 1996 TDHS estimate of 529, the difference between these two figures is *not statistically significant*. Thus, it is not possible to conclude that there has been any change in maternal mortality in Tanzania.

H. Child Health

The 2004-05 TDHS obtained information on a number of key child health indicators, including childhood mortality rates, immunization of young children, and treatment practices when a child is ill.

Levels of Childhood Mortality

One important objective of the 2004-05 TDHS was to measure the level and trend of mortality among children, since infant and child mortality rates are basic indicators of a country's socioeconomic situation and quality of life. Estimates of childhood mortality are based on information from the birth history section of the questionnaire administered to individual women. The section began with questions about the aggregate childbearing experience of respondents (i.e., the number of sons and daughters who live with the mother, the number who live elsewhere and the number who have died). For each of these births, information was then collected on sex, month and year of birth, survivorship status and current

age, or, if the child had died, age at death. This information is used to directly estimate the following five mortality rates:

Neonatal mortality:	the probability of dying within the first month of life;
Postneonatal mortality:	the difference between infant and neonatal mortality;
Infant mortality:	the probability of dying before the first birthday;
Child mortality:	the probability of dying between the first and fifth birthday;
Under-five mortality:	the probability of dying between birth and the fifth birthday.

All rates are expressed per 1,000 live births except for child mortality, which is expressed per 1,000 children surviving to 12 months of age.

Table 8 shows infant and child mortality estimates based on data from the 2004-05 TDHS. For the five years immediately preceding the survey (approximately calendar years 2000-2004), the infant mortality rate is 68 per 1,000 live births. The estimate of child mortality (age 1 to age 4) is lower. The overall under-five mortality rate for the period is 112 per 1,000.

Table 8 Early childhood mortality rates

Neonatal, postneonatal, infant, child, and under-five mortality rates for five-year periods preceding the survey, Tanzania 2004

Years preceding the survey	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
0-4	32	36	68	47	112
5-9	36	64	100	63	156
10-14	35	59	94	74	161

[1] Computed as the difference between the infant and neonatal mortality rates

The 2004-05 TDHS data indicate a recent, rapid decline in mortality. Infant mortality estimates show a decline from 100 in the 5-9 year period preceding the survey (approximately 1995-1999) to 68 during the 2000-2004 period. It is notable that the 2004-05 TDHS estimate for the 5-9 year period preceding the survey is statistically the same as the 1999 Tanzania Reproductive and Child Health Survey (TRCHS) rate of 99 deaths per 1,000 births for the same period (i.e., 0-4 years prior). Thus, the comparison of the two separate surveys—the 1999 TRCHS and the 2004-05 TDHS—as well as the 2004-05 TDHS data itself, indicate a significant decrease in infant and child mortality rates in recent years.

A thorough investigation of the 2004-05 TDHS mortality data is beyond the scope of this report. However, in considering these data it is important to note that the 2004-05 TDHS estimate may reflect a real decline in mortality rates, may reflect some underestimation in mortality, or perhaps a combination of both.

Overall, an initial review of the 2004-05 TDHS mortality data support a conclusion that there was a very substantial decline in under-five mortality in Tanzania over the five-year period between the TRCHS and the TDHS. The 2004-05 TDHS mortality data does not indicate any serious underreporting of infant and child deaths. For example, there is no evidence of omission of live births from the sample, nor is there evidence of displacement of birth year. Although there is significant heaping on age at death

(with deaths at 12 months or 1 year being reported more frequently than deaths at other ages), this was also true of previous surveys in Tanzania.

It should be noted that during the 2004-05 TDHS fieldwork particular attention was given to ensuring the quality of the mortality data. Within a month of the start of fieldwork, data quality tables indicated that that the reports of under-five deaths were lower than expected. Immediate action was taken to communicate with the teams and review procedures for detecting all child deaths and for properly estimating age at death. Special visits also were made to teams and this issue was addressed during those visits.

Subsequent tables in this report give indications of improving conditions for young children including higher rates of exclusive breastfeeding and vitamin A supplementation, and increased use of insecticide-treated mosquito nets, which in turn would be associated with a child's likelihood of survival. More detailed analysis will be included in the final report.

Vaccination of Children

According to the World Health Organization, a child is considered fully vaccinated if he or she has received a BCG vaccination against tuberculosis; three doses of DPT vaccine to prevent diphtheria, pertussis, and tetanus; at least three doses of polio vaccine; and one dose of measles vaccine. These vaccinations should be received during the first year of life. The 2004-05 TDHS collected information on the coverage for these vaccinations among all children under age five.

The information on vaccination coverage was obtained in two ways—from health cards and from mother's verbal reports. All mothers were asked to show the interviewer the health cards on which the child(ren)'s immunization record was recorded. If the card was available, the interviewer copied the dates on which each vaccination was received. If a vaccination was not recorded on the health card, the mother was asked to recall whether that particular vaccination had been given. If the mother was not able to present a health card for her child, she was asked to recall whether the child had received BCG, polio, DPT and measles. If she indicated that the child had received the polio or DPT vaccines, she was asked about the number of doses that the child received.

Table 9 presents information on vaccination coverage for children 12-23 months, who ought to have been fully vaccinated against the major preventable childhood illnesses. At the time of the interview, 71 percent of children were fully immunized. At least nine out of ten children receive BCG, DPT 1, DPT 2, Polio 1, and Polio 2. However, the proportion of children receiving the third dose of DPT and Polio is lower (86 percent and 84 percent, respectively), as is the proportion receiving measles (80 percent). As expected, full vaccination coverage varies significantly by mother's education from 56 percent among children of mothers with no education to 79 among children of mothers with at least some secondary education. There is significant variation by residence: 82 percent of urban children are fully immunized compared with 69 percent of rural children.

Table 9 Vaccinations by background characteristics

Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card seen, by background characteristics, Tanzania 2004

Background characteristic	BCG	DPT 1	DPT 2	DPT 3	Polio 0	Polio 1	Polio 2	Polio 3	Measles	All[2]	No vacci-nations	Percentage with card seen	Number of children
Sex													
Male	92.0	93.3	90.0	86.0	45.3	93.7	90.2	83.0	79.8	70.1	4.7	78.1	842
Female	90.8	93.3	89.4	85.9	43.1	94.8	90.5	84.2	80.0	72.1	4.2	79.5	817
Birth order													
1	92.0	95.1	91.5	87.9	51.9	94.9	90.8	83.1	82.5	72.2	4.1	80.9	378
2-3	92.8	93.3	91.1	88.3	49.9	94.6	92.0	86.8	83.6	76.5	4.1	79.4	602
4-5	91.8	94.9	91.1	87.3	36.7	94.9	91.5	84.5	79.0	70.0	3.4	76.5	328
6+	87.9	90.0	84.0	78.4	33.3	92.4	86.0	77.7	71.7	61.7	6.5	77.5	351
Residence													
Urban	96.0	96.9	96.9	94.3	72.6	94.6	94.6	88.4	89.7	81.5	3.1	79.4	303
Rural	90.3	92.5	88.1	84.0	37.9	94.2	89.4	82.5	77.7	68.8	4.8	78.7	1,355
Mainland/Zanzibar													
Mainland	91.3	93.3	89.6	85.8	44.4	94.3	90.3	83.6	79.9	71.0	4.5	78.7	1,620
Total urban	96.0	96.9	96.9	94.4	73.5	94.0	94.0	87.8	89.8	81.0	3.1	79.4	294
Dar es Salaam city	(92.5)	(92.5)	(92.5)	(89.6)	(81.4)	(81.2)	(81.2)	(74.5)	(88.3)	(70.4)	(7.5)	(67.4)	76
Other urban	97.3	98.5	98.5	96.1	70.8	98.5	98.5	92.5	90.3	84.7	1.5	83.5	219
Total rural	90.2	92.5	87.9	83.9	37.9	94.3	89.5	82.6	77.6	68.8	4.8	78.5	1,326
Zanzibar	94.9	95.5	94.0	88.6	36.1	93.3	91.6	84.3	82.0	74.7	3.9	83.4	38
Unguja	97.9	98.8	98.8	94.1	50.2	97.4	96.1	92.9	91.1	85.8	1.2	86.8	22
Pemba	91.1	91.2	87.7	81.3	17.4	87.8	85.7	72.7	69.8	59.9	7.5	78.8	17
Region													
Dodoma	95.6	100.0	100.0	98.2	48.9	100.0	100.0	96.6	93.4	85.6	0.0	85.9	76
Arusha	88.2	88.2	88.2	86.2	55.6	90.2	86.2	84.7	82.1	80.1	9.8	66.6	53
Kilimanjaro	(100.0)	(100.0)	(100.0)	(100.0)	(89.5)	(100.0)	(100.0)	(89.4)	(100.0)	(89.4)	(0.0)	(74.1)	30
Tanga	(84.5)	(89.2)	(84.2)	(74.8)	(37.9)	(96.3)	(89.7)	(78.9)	(84.1)	(57.7)	(3.7)	(79.3)	69
Morogoro	96.5	100.0	100.0	100.0	51.6	100.0	100.0	100.0	93.4	89.9	0.0	97.1	47
Pwani	(100.0)	(96.9)	(96.9)	(94.5)	(59.3)	(96.9)	(96.9)	(91.2)	(77.2)	(73.9)	(0.0)	(77.5)	28
Dar es Salaam	(92.5)	(92.5)	(92.5)	(89.6)	(81.4)	(81.2)	(81.2)	(74.5)	(88.3)	(70.4)	(7.5)	(67.4)	76
Lindi	(94.9)	(97.4)	(97.4)	(92.1)	(66.6)	(97.4)	(97.4)	(89.7)	(86.3)	(73.4)	(2.6)	(82.2)	28
Mtwara	(96.1)	(100.0)	(100.0)	(100.0)	(69.6)	(100.0)	(100.0)	(95.6)	(92.4)	(84.1)	(0.0)	(85.9)	50
Ruvuma	100.0	100.0	100.0	95.4	65.2	100.0	100.0	91.3	94.6	88.6	0.0	90.3	51
Iringa	(97.8)	(100.0)	(100.0)	(98.3)	(67.3)	(100.0)	(100.0)	(88.5)	(96.7)	(83.1)	(0.0)	(92.6)	51
Mbeya	80.7	90.5	83.5	80.6	31.8	92.0	82.2	73.7	70.0	50.4	5.2	69.2	124
Singida	92.9	92.1	85.9	84.6	45.0	92.1	85.9	82.3	78.4	76.0	5.8	85.7	65
Tabora	81.1	79.7	66.4	58.7	38.7	86.5	71.0	58.4	46.5	36.7	9.7	75.2	116
Rukwa	88.6	96.8	86.4	80.0	15.4	98.5	89.4	78.1	78.6	67.9	1.5	82.7	58
Kigoma	96.2	98.1	96.2	96.2	69.4	98.1	98.1	94.5	90.0	86.4	1.9	89.5	85
Shinyanga	87.6	87.5	81.7	72.4	14.3	89.5	83.7	74.8	61.7	55.3	10.5	74.9	179
Kagera	95.0	94.4	90.0	87.7	40.7	96.7	92.2	88.7	86.6	79.2	2.2	77.4	120
Mwanza	97.2	98.2	98.2	96.7	39.5	98.2	98.2	95.7	91.5	88.0	1.8	75.6	183
Mara	85.4	86.6	80.4	76.1	37.4	88.8	87.7	76.2	66.2	61.6	10.2	76.2	78
Manyara	92.8	97.6	97.6	94.3	36.4	97.6	95.2	88.7	82.6	74.6	2.4	79.3	57
Zanzibar North	96.6	100.0	100.0	100.0	25.5	94.9	93.1	93.1	98.4	88.2	0.0	90.1	6
Zanzibar South	(100.0)	(100.0)	(100.0)	(98.1)	(63.5)	(100.0)	(100.0)	(95.8)	(88.0)	(85.7)	(0.0)	(94.1)	3
Town West	97.9	97.9	97.9	90.5	58.1	97.9	96.5	92.2	88.5	84.7	2.1	83.6	13
Pemba North	96.8	94.1	88.2	82.0	7.5	89.7	85.2	65.3	73.0	54.9	3.2	72.3	8
Pemba South	85.8	88.5	87.2	80.5	26.4	86.1	86.1	79.4	67.0	64.3	11.5	84.7	9
Education													
No education	84.3	85.9	77.5	73.8	32.0	89.5	80.6	72.0	64.6	55.6	8.3	73.2	426
Primary incomplete	89.1	93.8	90.2	86.7	39.6	94.7	90.0	82.0	78.4	67.9	4.8	79.5	261
Primary complete	95.1	96.6	94.8	91.0	49.2	96.5	94.9	89.6	86.8	78.7	2.5	81.3	898
Secondary+	95.1	95.0	94.8	90.7	70.7	92.1	91.8	82.9	89.8	79.2	4.9	78.4	74
Total	91.4	93.3	89.7	85.9	44.2	94.2	90.3	83.6	79.9	71.1	4.4	78.8	1,658

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth)

Childhood diarrhoea

Dehydration as a result of diarrhoea is a frequent cause of death in young children. The administration of oral rehydration therapy (ORT) is a simple means of counteracting the effect of dehydration. During ORT, the child is given a solution either prepared by mixing water with the powder in a commercially prepared oral rehydration packet (ORS) or by simply increasing the amount of fluids given to children. In the 2004-05 TDHS, mothers were asked whether children under five had diarrhoea in the two weeks preceding the survey. If so, the mother was asked what, if anything, had been done to treat the diarrhoea.

Table 10 shows treatment practices for children who had diarrhoea in the two weeks preceding the survey. Less than half of sick children (47 percent) were taken to a facility. The data indicate, however, that treatment at home is much more common. Fifty-four percent of children were given solution prepared from an ORS packet and 70 percent were given ORT.

There are significant regional differentials in treatment practices. Children of mothers with no education are less likely to have been given some form of ORT than children of mothers with at least secondary education (66 percent and 85 percent respectively). Although the variation is not great, the percentage for whom treatment was sought from a health care facility or professional was slightly higher for boys than for girls (49 percent and 45 percent, respectively).

Table 10 Treatment for diarrhoea

Among children under five years who were sick with diarrhoea during the two weeks preceding the survey, percentage for whom treatment was sought from a health facility or provider, percentage given a solution made from oral rehydration salt (ORS) packets, and percentage given any oral rehydration therapy (ORT) by background characteristics, Tanzania, 2004

Background characteristic	Children with diarrhoea			
	Percentage for whom treatment was sought from a health facility or provider[1]	Percentage given solution from ORS packet	Percentage given any ORT[2]	Number of children with diarrhoea
Age in months				
<6	44.3	43.6	53.5	62
6-11	47.4	51.5	61.6	232
12-23	50.1	58.5	74.9	370
24-35	38.8	55.2	74.7	168
36-47	53.8	49.0	72.1	103
48-59	41.5	50.2	72.8	68
Sex				
Male	49.0	54.1	71.2	538
Female	44.7	53.6	68.7	466
Residence				
Urban	46.6	51.2	78.0	156
Rural	47.1	54.3	68.6	848
Mainland/Zanzibar				
Mainland	47.1	54.4	70.3	977
Total urban	46.7	52.2	78.1	148
Dar es Salaam city	53.8	52.7	89.4	30
Other urban	44.8	52.0	75.3	118
Total rural	47.1	54.9	69.0	829
Zanzibar	45.7	33.3	59.7	28
Unguja	53.2	38.5	65.5	17
Pemba	33.7	24.9	50.4	11
Zones				
Western	37.7	46.4	59.0	272
Northern	43.3	43.8	61.5	108
Central	52.9	60.9	70.7	117
Southern highlands	45.7	53.8	71.2	153
Lake	52.0	60.1	81.7	149
Eastern	64.3	70.4	90.2	83
Southern	50.3	60.0	75.8	95
Education				
No education	49.0	55.9	66.0	273
Primary incomplete	44.9	58.3	73.0	175
Primary complete	46.3	51.6	69.8	509
Secondary+	51.4	49.6	85.1	47
Total	47.0	53.9	70.0	1,004

[1] Excludes pharmacy, shop, and traditional practitioner
[2] Includes ORS, recommended home fluid, or increased fluids

I. Malaria

Malaria is a major public health concern in Tanzania, especially among pregnant women and children under the age of five. The use of mosquito nets, particularly insecticide-treated nets (ITN), is a primary health intervention to reduce malaria transmission.

Table 11 shows that although almost half of Tanzanian households report owning a mosquito net, only 14 percent own an ITN. In the Mainland, approximately one in ten children under 5 and one in ten pregnant women slept under an ITN the night before the survey. In Zanzibar, however, it is less common to sleep under an ITN: 8 percent of children under five and 4 percent of pregnant women reported sleeping under an insecticide treated net the night before the survey. In the Mainland, there are large discrepancies between urban and rural areas in the use of insecticide-treated nets.

Pregnant women who carry the malaria parasite may be at risk of serious problems that jeopardize their own health, that compromise the health of the foetus, and that increase the likelihood of adverse pregnancy outcomes such as stillbirth, spontaneous abortion, and low birth weight. As a protective measure, the World Health Organization recommends that pregnant women receive Intermittent Preventive Treatment (IPT) using two doses of sulfadoxine-pyrimethamine (SP) during the second and early in the third trimester of pregnancy. Overall, 18 percent of pregnant women received IPT during an antenatal visit for their last live birth.

Since the major manifestations of malaria are fever and convulsions or fits, mothers were asked whether their children under age five had had a fever, convulsions, or fits in the two weeks preceding the survey. If reported, the mother was asked if the child was given any drugs.

Among children who had a fever/convulsions in the two weeks preceding the survey, 58 percent took an antimalarial drug. Overall, half of sick children received the antimalarial the same day as the onset of symptoms or the next day.

Table 11 Malaria indicators

Possession and use of mosquito nets, malaria treatment during pregnancy, and treatment of children with fever, by residence, Tanzania, 2004

	Residence				
	Mainland				
Indicator	Urban	Rural	Total	Zanzibar	Total
Mosquito net					
Percentage of household with at least one mosquito net	73.9	35.8	45.9	64.9	46.3
Percentage of household with at least one insecticide-treated net (ITN)	31.6	8.0	14.2	14.0	14.2
Percentage of children under 5 who slept under a mosquito net the night before the survey	38.3	35.6	36.1	35.5	36.1
Percentage of children under 5 who slept under an Insecticide Treated Net (ITN) the night before the survey	17.8	8.6	10.4	7.8	10.3
Percentage of pregnant women age 15-49 who slept under a mosquito net the night before the survey	46.9	29.6	33.0	22.6	32.7
Percentage of pregnant women age 15-49 who slept under an insecticide-treated net (ITN) the night before the survey	16.2	9.5	10.8	3.7	10.6
Malaria treatment during pregnancy					
Percentage of last births in the 5 years preceding the survey for which the mother took antimalarial drugs for prevention during the pregnancy	58.8	48.4	50.7	23.0	50.0
Percentage of last birth in the 5 years preceding the survey for which the mother got intermittent preventive treatment (IPT) during an antenatal visit	22.5	17.3	18.4	10.3	18.2
Treatment of fever					
Among children under age 5 with fever in the two weeks preceding the survey, percentage who took antimalarial drugs	64.6	56.7	58.2	60.7	58.2
Among children under age 5 with fever in the two weeks preceding the survey, percentage who took antimalarial drugs the same day/next day after developing fever	57.2	49.8	51.1	48.4	51.0
Number of households	2,492	6,990	9,483	252	9,735
Number of children under five years of age	1,583	6,583	8,166	213	8,379
Number of pregnant women age 15-49	206	855	1,061	30	1,091
Number of last births in the five years preceding the survey	1,236	4,392	5,628	144	5,772
Number of living children under five years of age with fever in the two weeks preceding the survey	338	1,544	1,883	67	1,949

[1] An insecticide-treated net (ITN) is a permanent net that does not require any treatment, a pretreated net obtained within the last six months or a net that has been soaked with insecticide within the past six months.

[2] Intermittent preventive treatment is preventive treatment with at least two doses of SP/Fansidar during antenatal visit.

J. Nutrition

Breastfeeding

Breast milk is the optimal source of nutrients for infants. Children who are exclusively breastfed receive only breast milk. Exclusive breastfeeding is recommended during the first 6 months of a child's life because it limits exposure to disease agents as well as providing all of the nutrients that a baby requires.

Table 12 shows that exclusive breastfeeding is a common practice in Tanzania. Seventy percent of children less than two months of age, are exclusively breastfed. This is a significant increase from 1999 Tanzania Reproductive and Child Health Survey, which found that 58 percent of children were exclusively breastfed. Four in ten children six months of age are exclusively breastfed (Figure 2). The data show that complementary foods are introduced at a young age in Tanzania.

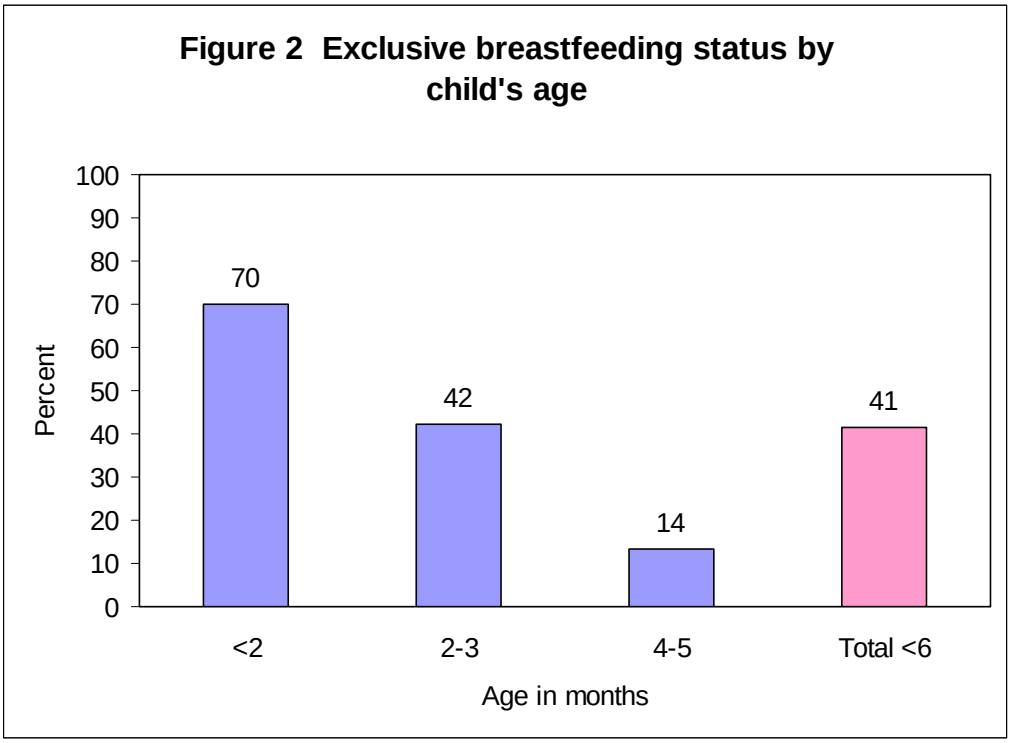
Table 12 Breastfeeding status by child's age

Percent distribution of youngest children under three years living with the mother by breastfeeding status and percentage of children under three years using a bottle with a nipple, according to age in months, Tanzania 2004

			Breastfeeding and consuming:							
Age in months	Not breastfeeding	Exclusively breastfed	Plain water only	Water-based liquids/ juice	Other milk	Comple-mentary food	Total	Number of children	Percentage using a bottle with a nipple[1]	Number of children
<2	2.4	70.0	18.4	0.5	1.5	7.2	100.0	256	0.4	259
2-3	0.3	42.4	19.9	2.2	3.1	32.1	100.0	304	5.6	308
4-5	3.8	13.5	16.4	3.0	5.4	57.9	100.0	277	7.2	279
6-7	2.0	1.7	4.6	2.4	0.8	88.5	100.0	305	6.1	307
8-9	1.9	0.9	2.6	0.6	0.7	93.3	100.0	300	3.4	305
10-11	3.7	0.4	0.6	0.6	0.5	94.3	100.0	299	4.1	304
12-15	9.0	0.0	1.5	0.4	0.0	89.0	100.0	545	3.4	559
16-19	16.6	0.9	0.4	0.0	0.2	82.0	100.0	556	3.8	579
20-23	44.6	0.0	0.5	0.0	0.0	54.9	100.0	482	2.0	520
24-27	81.7	0.0	0.0	0.0	0.0	18.3	100.0	410	2.0	530
28-31	90.0	0.2	0.0	0.0	0.0	9.8	100.0	347	1.1	549
32-35	94.5	0.0	0.0	0.0	0.0	5.5	100.0	298	0.9	532
<6	2.1	41.3	18.3	2.0	3.4	33.0	100.0	837	4.5	845
6-9	2.0	1.3	3.6	1.5	0.7	90.9	100.0	606	4.7	612

Note: Breastfeeding status refers to a "24-hour" period (yesterday and last night). Children classified as breastfeeding and consuming plain water only consume no supplements. The categories of not breastfeeding, exclusively breastfed, breastfeeding and consuming plain water, water-based liquids/juice, other milk, and complementary foods (solids and semi-solids) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus children who receive breast milk and water-based liquids and who do not receive complementary foods are classified in the water-based liquid category even though they may also get plain water. Any children who get complementary food are classified in that category as long as they are breastfeeding as well.

[1] Based on all children under three years



Nutritional Status of Children

Undernutrition places children at increased risk of morbidity and mortality and has also been shown to be related to impaired mental development. Anthropometry provides one of the most important indicators of children's nutritional status. Height and weight measurements were obtained for all children born in the five years before the 2004-05 TDHS. The height and weight data are used to compute three summary indices of nutritional status: height-for-age; weight-for-height; and weight-for-age. These three indices are expressed as standard deviation units from the median for the international reference population recommended by the World Health Organization. Children who fall more than two standard deviations (-2 SD) below the reference median are regarded as undernourished, while those who fall more than three standard deviations (-3 SD) below the reference median are considered severely undernourished. Table 13 shows the nutritional status among children under five years of age by selected background characteristics.

Children whose height-for-age is below minus two standard deviations from the median of the reference population are considered stunted or short for their age. Stunting is the outcome of failure to receive adequate nutrition over an extended period and is also affected by recurrent or chronic illness. Thirty-eight percent of children under five are short for their age; of those children, approximately one-third (13 percent of all children) are severely stunted.

Children whose weight-for-height is below minus two standard deviations from the median of the reference population are considered wasted or thin. Wasting represents the failure to receive adequate nutrition in the period immediately before the survey, and typically is the result of recent illness episodes, especially diarrhoea, or of a rapid deterioration in food supplies. In Tanzania, 3 percent of children were wasted at the time of the survey.

Table 13 Nutritional status of children

Percentage of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, Tanzania 2004

Background characteristic	Height-for-age		Weight-for-height		Weight-for-age		Number of children
	Percentage below -3 SD	Percentage below -2 SD	Percentage below -3 SD	Percentage below -2 SD	Percentage below -3 SD	Percentage below -2 SD	
Age in months							
<6	1.4	8.0	0.0	1.2	0.2	2.4	758
6-9	3.9	18.9	0.4	2.3	2.1	14.8	599
10-11	7.1	33.5	0.3	3.5	5.7	29.5	300
12-23	15.4	45.2	0.9	6.3	6.0	29.0	1,662
24-35	13.8	39.2	0.1	3.1	3.8	24.5	1,653
36-47	16.4	45.2	0.2	1.4	3.6	22.1	1,520
48-59	15.6	43.3	0.4	1.9	3.2	21.5	1,496
Sex							
Male	13.6	38.6	0.4	3.3	3.9	22.1	3,988
Female	12.0	36.8	0.3	2.7	3.5	21.5	4,001
Residence							
Urban	7.4	25.8	0.4	2.8	2.1	17.0	1,536
Rural	14.1	40.5	0.4	3.0	4.1	22.9	6,453
Mainland/Zanzibar							
Mainland	12.9	38.0	0.3	2.9	3.7	21.9	7,792
Total urban	7.3	26.0	0.4	2.9	2.1	17.3	1,512
Dar es Salaam city	1.9	16.9	0.5	4.1	0.9	14.3	381
Other urban	9.1	29.1	0.3	2.4	2.4	18.3	1,130
Total rural	14.3	40.9	0.3	2.9	4.1	23.0	6,281
Zanzibar	7.0	23.1	0.7	6.1	3.1	19.0	197
Unguja	4.6	18.0	0.7	6.7	2.7	17.0	125
Pemba	11.1	32.1	0.8	4.9	3.8	22.5	72
Region							
Dodoma	16.6	44.4	0.3	3.9	8.1	30.4	400
Arusha	9.7	27.2	0.6	3.4	2.9	20.0	261
Kilimanjaro	5.0	23.4	1.3	5.2	3.1	19.4	205
Tanga	15.9	43.3	0.3	6.5	5.5	31.8	289
Morogoro	10.6	35.8	0.0	2.2	1.0	15.6	320
Pwani	12.5	36.8	0.0	6.8	4.9	26.8	178
Dar es Salaam	1.9	16.9	0.5	4.1	0.9	14.3	381
Lindi	14.7	54.0	0.0	2.6	4.3	23.7	137
Mtwara	20.1	52.7	0.0	1.8	3.1	29.1	238
Ruvuma	16.3	50.4	0.0	0.4	1.3	24.7	217
Iringa	20.9	50.5	0.0	1.4	3.7	25.9	275
Mbeya	11.0	37.6	0.0	1.5	1.0	15.1	590
Singida	15.2	39.2	0.3	5.2	6.8	26.3	286
Tabora	12.9	34.0	1.1	2.6	3.1	19.9	462
Rukwa	16.2	45.1	0.2	1.7	5.4	24.5	294
Kigoma	20.5	50.1	0.5	3.7	9.1	34.2	435
Shinyanga	14.2	37.4	0.5	1.9	4.0	19.3	823
Kagera	11.7	37.3	0.3	3.6	4.1	25.4	527
Mwanza	6.5	30.6	0.3	2.3	1.9	12.8	850
Mara	16.5	38.7	0.0	0.8	3.2	16.7	360
Manyara	14.3	39.6	0.6	4.6	3.4	30.6	264
Zanzibar North	7.9	27.5	1.7	6.7	6.2	22.7	31
Zanzibar South	3.3	16.6	0.4	10.3	2.6	20.8	17
Town West	3.6	14.5	0.3	5.9	1.4	13.9	78
Pemba North	13.7	36.6	1.0	5.3	4.4	24.8	37
Pemba South	8.4	27.4	0.6	4.5	3.1	20.2	35

Continued...

Table 13—*Continued*

Percentage of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, Tanzania 2004

Background Characteristic	Height-for-age		Weight-for-height		Weight-for-age		Number of children
	Percentage below -3 SD	Percentage below -2 SD	Percentage below -3 SD	Percentage below -2 SD	Percentage below -3 SD	Percentage below -2 SD	
Education							
No education	11.6	39.0	0.0	0.2	0.0	13.1	79
Primary incomplete	14.6	42.9	0.5	3.1	4.9	22.4	1,158
Primary complete	11.1	35.1	0.4	3.2	3.2	20.7	3,963
Secondary +	13.3	38.0	0.3	3.0	4.1	23.4	2,197
Mother's age							
15-19	13.6	35.9	1.3	5.3	5.3	26.1	449
20-24	12.9	39.9	0.2	2.7	3.7	22.0	2,000
25-29	11.2	34.9	0.4	2.5	2.9	20.5	2,196
30-34	11.9	36.4	0.3	2.9	4.4	20.7	1,735
35-49	15.6	40.6	0.3	3.5	3.7	23.4	1,607
Mother's status							
Mother interviewed	12.3	37.1	0.4	3.1	3.7	21.6	7,210
Mother not interviewed, but in household	14.5	41.6	0.0	1.1	1.8	23.9	185
Mother not interviewed, not in household	18.9	43.5	0.2	2.0	4.4	23.5	584
Total	12.8	37.7	0.4	3.0	3.7	21.8	7,989

Note: Table is based on children who stayed in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the NCHS/CDC/WHO International Reference Population. The percentage of children who are more than three or more than two standard deviations below the median of the International Reference Population (-3 SD and -2 SD) are shown by background characteristics. Table is based on children who have a valid date of birth (month and year) and valid height and weight measurements.

[1] Includes children who are below -3 SD

[2] For women who were not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers were not listed in the household schedule

[3] Includes children whose mothers are deceased

Children whose weight-for-age is below minus two standard deviations from the median of the reference population are considered underweight. The measure reflects the effects of both acute and chronic undernutrition. Approximately one in five children (22 percent) is underweight.

Nutritional statistics do not vary by some background characteristics as expected. For example, there is no clear pattern between the mother's educational level and the child's nutritional status. On the other hand, the urban-rural differential in height-for-age is striking—41 percent of rural children are stunted, compared with 26 percent of urban children. The impact of weaning can be seen in younger children: the nutritional status of children deteriorates after 6 months of age, when children are being weaned.

Anaemia

Anaemia is a major problem in Tanzania, especially among young children and pregnant women. Causes of anaemia are malaria—which is endemic in most parts of the country—as well as dietary deficiencies and parasitic infections. Determining anaemia levels among women and their children was an important component of the 2004-05 TDHS because little was known about the prevalence of the anaemia among the general population.

Anaemia levels were determined by measuring the level of hemoglobin in the blood, a decreased concentration characterizes anaemia. For hemoglobin measurement, capillary blood was taken from the finger using sterile, one-time use lancets that allowed a relatively painless puncture. The concentration of hemoglobin in the blood was measured in the field using the HemoCue system. Data collection personnel, who were nurses, were specially trained for this procedure. Prior to participating in the study, each respondent was informed of her right not to participate in the anaemia testing and was asked for her permission for the collection of a blood droplet from herself and her children. Levels of anaemia were classified as severe, moderate, or mild according to criteria developed by the World Health Organization (DeMaeyer et al., 1989).

Tables 14.1 and 14.2 present the anaemia levels for children under five years of age and for women. Anaemia is common among children in Tanzania; approximately two-thirds are anaemic. The majority of children who suffer from anaemia are classified as having moderate anaemia (38 percent) while 3 percent are severely anaemic. Anaemia is less common among women; 43 percent show any evidence of anaemia, and the majority of women are mildly anaemic. The prevalence of anaemia among both children and women varies by residence. Among women the disparity between the Mainland and Zanzibar is particularly large (42 percent and 63 percent, respectively).

Table 14.1 Anaemia among children

Percentage of children age 6-59 months classified as having iron-deficiency anaemia, by background characteristics, Tanzania 2004

Background characteristic	Percentage with anaemia				Number of children
	Any anaemia	Mild anaemia	Moderate anaemia	Severe anaemia	
Residence					
Urban	60.9	26.7	31.1	3.1	1,399
Rural	66.2	23.5	39.2	3.5	5,902
Mainland/Zanzibar					
Mainland	65.0	24.0	37.5	3.4	7,121
Total urban	60.2	26.5	30.6	3.1	1,379
Dar es Salaam city	69.0	29.8	34.1	5.1	358
Other urban	57.1	25.3	29.4	2.4	1,021
Total rural	66.1	23.4	39.2	3.5	5,742
Zanzibar	75.1	30.7	42.5	1.9	180
Unguja	74.6	33.6	39.6	1.4	111
Pemba	75.9	26.0	47.2	2.7	69
Region					
Dodoma	58.6	26.0	30.1	2.5	350
Arusha	41.3	17.7	22.5	1.1	236
Kilimanjaro	44.7	22.0	22.2	0.5	187
Tanga	64.0	29.2	32.8	2.0	268
Morogoro	73.6	26.8	43.8	2.9	288
Pwani	76.2	30.5	41.0	4.7	164
Dar es Salaam	69.0	29.8	34.1	5.1	358
Lindi	88.2	26.4	59.0	2.9	128
Mtwara	77.8	27.1	48.0	2.8	218
Ruvuma	73.5	29.0	41.4	3.1	200
Iringa	31.3	18.5	12.8	0.0	250
Mbeya	59.5	24.1	34.0	1.4	560
Singida	63.2	26.9	33.8	2.5	265
Tabora	69.2	25.9	40.5	2.8	402
Rukwa	55.8	26.1	27.5	2.2	270
Kigoma	66.7	23.0	40.6	3.0	396
Shinyanga	73.5	25.0	44.6	4.0	754
Kagera	65.0	20.4	38.7	5.9	482
Mwanza	75.3	20.7	47.1	7.5	779
Mara	71.5	18.5	48.0	5.0	321
Manyara	40.2	18.8	20.9	0.5	246
Zanzibar North	76.7	30.3	44.6	1.8	27
Zanzibar South	70.9	30.5	40.0	0.4	16
Town West	74.7	35.7	37.5	1.5	68
Pemba North	77.4	22.9	51.8	2.7	36
Pemba South	74.2	29.2	42.3	2.7	33
Total	65.2	24.2	37.6	3.4	7,300

Note: Table is based on children who stayed in the household the night before the interview. Prevalence is adjusted for altitude using CDC formulas (CDC, 1998). Children with <7.0 g/dl of hemoglobin have severe anemia, children with 7.0-9.9 g/dl have moderate anemia, and children with 10.0-10.9 g/dl have mild anemia.

Table 14.2 Anaemia among women

Percentage of women age 15-49 years classified as having iron-deficiency anemia, by background characteristics, Tanzania 2004

Background characteristic	Percentage with anemia				Number of women
	Any anemia	Mild anemia	Moderate anemia	Severe anemia	
Residence					
Urban	43.0	28.0	14.0	1.0	2,830
Rural	42.7	30.4	11.3	0.9	7,309
Mainland/Zanzibar					
Mainland	42.2	29.3	11.9	0.9	9,833
Total urban	42.6	27.7	14.0	0.9	2,782
Dar es Salaam city	53.6	31.1	21.6	1.0	914
Other urban	37.2	26.1	10.2	0.9	1,868
Total rural	42.0	29.9	11.1	0.9	7,051
Zanzibar	62.8	43.5	17.4	1.9	305
Unguja	62.8	42.4	18.0	2.5	214
Pemba	62.9	46.0	16.2	0.6	92
Region					
Dodoma	33.5	23.4	8.4	1.7	459
Arusha	20.9	15.4	5.3	0.2	369
Kilimanjaro	24.7	17.6	7.1	0.0	376
Tanga	52.9	31.7	16.9	4.3	425
Morogoro	55.1	37.4	16.1	1.6	445
Pwani	57.2	42.3	13.8	1.1	250
Dar es Salaam	53.6	31.1	21.6	1.0	914
Lindi	46.0	36.1	9.3	0.6	217
Mtwara	45.8	35.9	10.0	0.0	344
Ruvuma	36.5	26.6	9.4	0.5	298
Iringa	15.2	11.9	2.7	0.6	410
Mbeya	27.8	22.6	5.0	0.3	708
Singida	41.7	31.7	8.7	1.4	329
Tabora	48.4	36.6	10.9	0.9	510
Rukwa	32.6	26.2	5.9	0.5	314
Kigoma	36.6	27.9	7.9	0.7	497
Shinyanga	56.7	37.5	18.4	0.8	836
Kagera	33.6	25.0	8.3	0.2	542
Mwanza	53.3	36.3	15.9	1.1	933
Mara	52.3	33.8	17.5	1.0	367
Manyara	27.6	16.5	10.3	0.9	289
Zanzibar North	66.2	45.4	18.0	2.7	47
Zanzibar South	50.8	37.8	12.7	0.2	26
Town West	63.9	42.2	18.9	2.8	141
Pemba North	65.1	46.9	17.2	1.0	50
Pemba South	60.3	45.1	15.0	0.3	41
Total	42.8	29.7	12.1	1.0	10,139

Note: Table is based on women who stayed in the household the night before the interview. Prevalence is adjusted for altitude and smoking using CDC formulas (CDC, 1998). Women with <7.0 g/dl of hemoglobin have severe anemia, women with 7.0-9.9 g/dl have moderate anemia, and non-pregnant women with 10.0-11.9 g/dl and pregnant women with 10.0-10.9 g/dl have mild anemia.

Vitamin A Supplementation

Vitamin A is a micronutrient that is essential for the proper development of children's immune and visual systems. Table 15 shows that almost half (46 percent) of children 6-59 months old received vitamin A supplements in the six months preceding the survey. This is more than three times the rate recorded during the 1999 TRCHS. There is considerable regional variation from a high of 67 percent in Dodoma to a low of 13 percent in Pemba North.

Iodization of Household Salt

Disorders induced by dietary iodine deficiency constitute a major global nutrition concern. A lack of sufficient iodine can lead to goiter, hypothyroidism, impaired mental functions, retarded mental and physical development, and diminished school performance. Iodine deficiency in the foetus leads to increased rates of abortion, stillbirths, congenital anomalies, cretinism, psychomotor defects, and neonatal mortality. Iodine deficiency can be avoided by using salt that has been fortified with iodine (iodized salt).

The data presented in Table 16 are based on the 93 percent of households where salt was tested. In Tanzania, 43 percent of households use adequately iodized salt. Urban households are twice as likely as rural households to have adequately iodized salt and there are significant regional differentials.

Table 15 Vitamin A supplementation

Percentage of children age 6-59 months who received vitamin A supplements in the six months preceding the survey, by background characteristics, Tanzania 2004

Background characteristic	Consumed vitamin A supplements	Number of children
Age in months		
6-9	27.4	612
10-11	49.8	304
12-23	49.1	1,658
24-35	49.8	1,611
36-47	46.8	1,510
48-59	41.9	1,434
Sex		
Male	44.2	3,579
Female	46.8	3,552
Residence		
Urban	54.0	1,398
Rural	43.4	5,732
Mainland/Zanzibar		
Mainland	46.1	6,949
Total urban	54.4	1,382
Dar es Salaam city	54.9	361
Other urban	54.3	1,021
Total rural	44.0	5,567
Zanzibar	22.4	181
Unguja	27.4	109
Pemba	14.8	72
Region		
Dodoma	67.0	334
Arusha	58.1	249
Kilimanjaro	59.4	174
Tanga	30.3	285
Morogoro	44.4	271
Pwani	59.4	159
Dar es Salaam	54.9	361
Lindi	38.2	123
Mtwara	41.5	207
Ruvuma	42.9	188
Iringa	54.1	237
Mbeya	28.5	554
Singida	59.4	253
Tabora	25.2	410
Rukwa	17.8	275
Kigoma	64.1	385
Shinyanga	61.9	753
Kagera	41.8	454
Mwanza	39.4	735
Mara	44.2	308
Manyara	42.9	232
Zanzibar North	29.0	26
Zanzibar South	26.9	15
Town West	26.9	68
Pemba North	12.5	36
Pemba South	17.1	36
Total	45.5	7,130

Note: Information on vitamin A supplements is based on mother's recall.

Table 16 Iodization of household salt

Percent distribution of households with salt tested for iodine content by level of iodine in salt (parts per million), percentage of households tested, and percentage of households with no salt, according to background characteristics, Country 2000

Background characteristic	Iodine content among households tested: None (0 ppm)	Inadequate (<15 ppm)	Adequate (15+ ppm)	Total	Number of households	Percentage of households tested	Percentage of households with no salt	Number of households
Residence								
Urban	11.6	16.6	71.7	100.0	2,326	90.5	7.9	2,569
Rural	32.1	34.3	33.5	100.0	6,700	93.5	5.8	7,166
Mainland/Zanzibar								
Mainland	26.2	29.8	44.1	100.0	8,790	92.7	6.4	9,483
Total urban	10.6	16.2	73.2	100.0	2,320	90.4	7.9	2,565
Dar es Salaam city	2.4	10.3	87.3	100.0	757	87.2	9.7	868
Other urban	14.6	19.0	66.4	100.0	1,563	92.1	7.0	1,697
Total rural	31.8	34.6	33.6	100.0	6,470	93.5	5.8	6,918
Zanzibar	51.8	29.9	18.3	100.0	237	93.8	5.4	252
Unguja	45.3	33.6	21.1	100.0	157	93.9	5.8	167
Pemba	64.7	22.7	12.6	100.0	80	93.8	4.8	85
Region								
Dodoma	38.5	38.3	23.2	100.0	483	92.8	6.4	520
Arusha	6.0	0.7	93.3	100.0	281	80.6	18.5	349
Kilimanjaro	13.8	5.9	80.3	100.0	380	93.2	6.0	408
Tanga	51.0	15.1	33.8	100.0	404	92.1	7.4	438
Morogoro	9.5	52.1	38.4	100.0	488	95.1	4.9	514
Pwani	21.4	40.9	37.8	100.0	268	94.6	5.4	283
Dar es Salaam	2.4	10.3	87.3	100.0	757	87.2	9.7	868
Lindi	79.6	10.0	10.3	100.0	237	96.1	2.7	247
Mtwara	58.7	36.7	4.6	100.0	365	96.5	2.5	379
Ruvuma	41.8	40.0	18.3	100.0	287	94.4	5.6	304
Iringa	57.6	28.2	14.2	100.0	474	99.0	1.0	479
Mbeya	16.3	28.0	55.7	100.0	587	88.5	9.1	664
Singida	66.8	20.5	12.7	100.0	289	96.0	3.6	300
Tabora	17.1	50.9	32.0	100.0	370	95.0	4.4	390
Rukwa	19.3	35.0	45.7	100.0	244	86.8	11.2	280
Kigoma	9.8	41.0	49.2	100.0	398	90.4	9.2	441
Shinyanga	19.1	42.6	38.3	100.0	612	95.1	3.4	644
Kagera	25.0	36.7	38.3	100.0	518	92.4	7.0	560
Mwanza	11.4	40.2	48.3	100.0	761	97.7	1.9	778
Mara	8.0	18.8	73.2	100.0	324	93.8	6.2	345
Manyara	47.4	7.0	45.6	100.0	263	90.3	9.2	291
Zanzibar North	53.6	27.2	19.2	100.0	39	91.4	8.1	43
Zanzibar South	47.6	34.8	17.5	100.0	25	94.4	5.6	26
Town West	41.2	35.9	22.9	100.0	93	94.8	4.9	99
Pemba North	80.4	14.8	4.8	100.0	42	93.9	5.1	45
Pemba South	47.0	31.6	21.3	100.0	38	93.8	4.3	40
Total	26.9	29.8	43.4	100.0	9,027	92.7	6.3	9,735

K. HIV/AIDS

The HIV/AIDS epidemic is a serious threat to Tanzania's social and economic development. The 2004-05 TDHS included a series of questions that addressed respondents' knowledge about AIDS and their awareness of modes of transmission of the Human Immunodeficiency Virus that causes AIDS, and of behaviours that can prevent the spread of HIV.

Table 17 shows that virtually all women and men say that they have heard of AIDS (99 percent each) and say that they believe there is a way to avoid HIV/AIDS (96 percent and 97 percent, respectively). The proportion is high regardless of background characteristics.

More detailed information on HIV/AIDS knowledge and related attitudes and behaviors can be found in the report on the 2003-04 Tanzania HIV/AIDS Indicator Survey (THIS) (TACAIDS et al. 2005), which was conducted shortly before the TDHS. The THIS also includes information on HIV prevalence among women and men of reproductive age.

Table 17 Knowledge of AIDS

Percentage of women and men who have heard of AIDS and believe there is a way to avoid HIV/AIDS, by background characteristics, Tanzania 2004

	Women			Men		
Background characteristic	Has heard of AIDS	Believes there is a way to avoid HIV/AIDS	Number	Has heard of AIDS	Believes there is a way to avoid HIV/AIDS	Number
Age						
15-19	97.8	92.9	2,245	97.5	93.4	637
20-24	98.9	96.3	2,007	98.8	97.8	493
25-29	99.6	98.0	1,885	100.0	98.5	405
30-39	99.3	96.7	2,595	99.8	98.9	665
40-49	99.0	96.5	1,597	100.0	99.0	435
Marital status						
Never married	98.4	94.8	2,371	98.0	95.4	1,100
Married or living together	99.0	96.3	6,950	99.9	98.6	1,401
Divorced/separated/widowed	99.2	97.0	1,007	100.0	99.1	135
Residence						
Urban	99.8	99.2	2,935	99.6	99.1	716
Rural	98.6	94.8	7,394	99.0	96.6	1,919
Mainland/Zanzibar						
Mainland	98.9	96.0	10,016	99.1	97.3	2,555
Total urban	99.8	99.2	2,885	99.6	99.2	717
Dar es Salaam city	100.0	98.9	969	98.9	98.9	268
Other urban	99.7	99.3	1,916	100.0	99.3	450
Total rural	98.5	94.7	7,131	99.0	96.6	1,838
Zanzibar	99.8	97.7	313	98.7	95.7	79
Unguja	99.9	98.8	216	100.0	100.0	53
Pemba	99.6	95.4	97	96.1	86.8	26
Education						
No education	96.2	89.1	2,503	95.9	90.5	312
Primary incomplete	99.5	96.8	1,855	99.0	96.1	646
Primary complete	99.8	98.5	5,086	99.7	98.8	1,381
Secondary+	100.0	99.7	885	100.0	100.0	296
Total	98.9	96.0	10,329	99.1	97.3	2,635

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